

Remarks

Applicants thank the Examiner for his careful consideration of the application.

Claims 1 and 5 – 7 are pending in the application.

Claim Rejections – 35 USC § 103

The Examiner rejected claims 1, 5 - 7 under 35 USC § 103(a) as being unpatentable over Nakamura et al (US Patent No. 6,488,355) ("Nakamura") in view of Okuda et al. (US 6,578,954) ("Okuda") and Tachihara et al (US Patent No. 6,280,020) ("Tachihara"). Applicants respectfully traverse these rejections.

In claim 1, Applicants recite a drop emitting device that includes an array of finger manifolds, each finger manifold having longitudinally separated first and second ends, wherein the first end comprises a fluid receiving end, a plurality of drop generators, each fluidically coupled to one of the finger manifolds, and a respective vent structure fluidically coupled to each of the finger manifolds for damping pressure perturbations in such finger manifold. The vent structure comprises a plurality of apertures disposed at the second end of each of the finger manifolds.

The Examiner should withdraw the rejection to claim 1 as the Examiner has not established a prima facie case of obviousness. The Examiner has failed to identify a suggestion in Nakamura, Tachihara, Okuda, or the prior art generally to combine the patents to achieve Applicants' claimed invention. (While Applicants do not acknowledge disclosure of the elements of the claimed invention by the references, Applicants submit that the Examiner has not identified any suggestion in either of the cited references to combine the various features allegedly taught by their respective references to achieve the invention claimed in this patent application.) To sustain a prima facie case of obviousness based upon a combination of references, the Examiner must point to some suggestion to combine the references. "The prior art must suggest the desirability of the claimed invention. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed Cir. 1990). This suggestion must be found in the prior

art, and cannot be based upon Applicants' disclosure. "Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor." Para-Ordinance Mfg. v. SGS Importers Int'l, 73 F.3d at 1087, 37 USPQ2d at 1239 (Fed. Cir. 1995), citing W. L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d at 1551, 1553, 220 USPQ at 311, 312-13 (Fed Cir. 1983). The Examiner relies upon the combination of Nakamura, Tachihara, and Okuda for the limitations present in Applicants' claim 1. The Examiner has stated that it would be obvious to combine the disclosures of these patents to achieve the invention recited in claim 1. Yet the Examiner has not provided a sufficient suggestion or motivation to combine the disclosure of either Nakamura or Okuda with that of Tachihara. The Examiner has not established that the patents or the prior art in general suggests that either the ink jet head of Nakamura or the ink jet head of Okuda should be combined with the ink jet head of Tachihara.

There are two scenarios by which one could conclude that combining Nakamura and Tachihara would be obvious. First, one skilled in the art could consider adding the disclosure of Tachihara to that of Nakamura. Nakamura appears to be directed toward an ink jet head having a plurality of ink pool branches and one end connected to a main ink pool, wherein each branch connects to a plurality of ink chamber units. Tachihara appears to be directed toward an ink-jet head having an ejection opening and one or more auxiliary holes of specified sizes and separation distances so as to maintain high reliability of ink ejection and printing quality during high-speed printing. The Examiner has pointed to no part of Nakamura that suggests the use of auxiliary holes as described in Tachihara or for the purposes disclosed in Tachihara. The Examiner argues that it would have been obvious to modify Nakamura to include the auxiliary holes of Tachihara in order to shorten the refill time. However, the Examiner provides no basis in Nakamura or the prior art generally other than to state it would be obvious. Therefore, the Examiner has failed to establish that a person having knowledge of Tachihara would be motivated to add its disclosure to the disclosure of Nakamura.

Alternatively, one could start with Tachihara. Again, Tachihara appears to be directed toward an ink-jet head having an ejection opening and one or more auxiliary holes of

specified sizes and separation distances so as to maintain high reliability of ink ejection and printing quality during high-speed printing. The Examiner has pointed to nothing in either Tachihara or the prior art generally that suggests a plurality of ink pool branches and one end connected to a main ink pool, wherein each branch connects to a plurality of ink chamber units. Therefore, the Examiner has failed to establish that a person having knowledge of Nakamura would be motivated to add its disclosure to the disclosure of the Tachihara.

There are also two scenarios by which one could conclude that combining Okuda and Tachihara would be obvious. First, one skilled in the art could consider adding the disclosure of Tachihara to that of Okuda. FIG. 16 of Okuda appears to be directed toward an ink jet printing head having a common ink channel and a plurality of ejectors connected to the common ink channel, wherein a first end of the common ink channel is connected to an ink tank and the second end includes an air vent hole so that bubbles can be easily removed. Tachihara appears to be directed toward an ink-jet head having an ejection opening and one or more auxiliary holes of specified sizes and separation distances so as to maintain high reliability of ink ejection and printing quality during high-speed printing. The Examiner has pointed to no part of Okuda that suggests the use of auxiliary holes as described in Tachihara or for the purposes disclosed in Tachihara. The Examiner argues that it would have been obvious to modify Okuda to include the auxiliary holes of Tachihara in order to shorten the refill time. However, the Examiner provides no basis in Okuda or the prior art generally other than to state it would be obvious. The hole in Okuda is at the end of a common ink channel and appears to be there solely for eliminating air bubbles from the channel. The holes in Tachihara, which are along the body and not at the end, appear to be there to shorten refill time. Therefore, the Examiner has failed to establish that a person having knowledge of Tachihara would be motivated to add its disclosure to the disclosure of Okuda.

Alternatively, one could start with Tachihara. Again, Tachihara appears to be directed toward an ink-jet head having an ejection opening and one or more auxiliary holes of specified sizes and separation distances so as to maintain high reliability of ink ejection and

printing quality during high-speed printing. The Examiner has pointed to nothing in either Tachihara or the prior art generally that suggests an ink jet printing head having a common ink channel and a plurality of ejectors connected to the common ink channel. Therefore, the Examiner has failed to establish that a person having knowledge of the Okuda patent would be motivated to add its disclosure to the disclosure of the Tachihara patent.

Since a motivation to combine was not found in any of the references or the prior art generally, it is unlikely that one would have combined either Nakamura or Okuda with Tachihara for any reason other than to create Applicants' invention. Therefore, the obviousness rejection to claim 1 based upon these two references should be withdrawn.

Claims 5 – 7 depend from claim 1, and should be allowed if claim 1 is allowed.

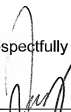
Claim 9 is new and Applicants believe claim 9 is allowable.

Conclusion

No additional fee is believed to be required for this amendment. However, the undersigned Xerox Corporation attorney hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025. This also constitutes a request for any needed extension of time and authorization to charge all fees therefor to Xerox Corporation Deposit Account No. 24-0025.

A telephone interview is respectfully requested at the number listed below prior to any further Office Action, i.e., if the Examiner has any remaining questions or issues to address after this paper. The undersigned will be happy to discuss any further Examiner-proposed amendments as may be appropriate.

Respectfully submitted,



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